



DRYING BASKET AND FASTENING DEVICE FOR A DRYING
BASKET ON A DRIER

FIELD OF THE INVENTION

[001] This invention relates to a drying basket and a fastening device for a drying basket on a drier.

BACKGROUND OF THE INVENTION

[002] Drying baskets are used in driers with a rotary drum in order to dry sensitive items of clothing or shoes which must not be subjected to movement in the air flow of a drier. A drying basket is suspended for this purpose in the region of the door folding of the feed door of a drier, and therefore projects with its basket into the interior of the drum so that sensitive items or clothing or shoes can be dried on it, since the drying basket is not secured in the interior of the drier so that it also rotates. Furthermore, a method is known for removing the lint screen installed underneath the door in the front end plate and suspending the drying basket in the lower end plate in the opening thus formed. In most cases drying baskets are very expensive wire braids with special hook-shaped connecting elements welded onto them. A drying basket may also consist of a combination of a plastic basket with reinforcing and fastening elements.

SUMMARY OF THE INVENTION

[003] The object of this invention is to make available a drying basket for a drier, which basket is of simple construction and is easy to handle.

[004] A drying basket for a drier has a longitudinal support and a lattice-shaped basket fastened to it. Because a connecting device is formed integrally on the longitudinal support and can be engaged with an opening provided on the drier, a simple construction of a drying basket is made available. Because the connecting device is formed integrally on the longitudinal support, the flow of force and the introduction of force into the connecting device is optimised, in which case the structural design is simple and consists of few parts.

[005] In an advantageous embodiment, the longitudinal support is designed as a wire and the connecting device is designed as a hook. In this case the hook is formed on an end section of the wire, preferably by means of a bending process. This type of design of a hook at the end of a wire is particularly simple and appropriate.

[006] In an advantageous embodiment, the connecting device has a support section on the longitudinal support, with which section the connecting device is supported on the housing section of the drier. Consequently a simple connecting device is made available in that the drying basket can first be engaged with the hook in the opening on the drier, and is then lowered and is additionally supported with the support section on a housing section of the drier. A drying basket that is easy to handle is therefore made available.

[007] In a preferred embodiment, a longitudinal support is arranged on both longitudinal sides of the drying basket, which supports can be engaged with an opening provided on the drier. Here the connecting device is designed as a hook on an end section of the longitudinal support. This provides extremely simple handling when the drying basket is inserted in and removed from the drier.

[008] Since a fastening device for a drying basket is provided on a drier with a housing by providing an opening on one section of the housing of the drier, with which opening a connecting device of a drying basket can be engaged, a simple, reliable connection, that does not damage any components of the drier, can be achieved between the drying basket and the drier. It is not necessary to secure the basket in a door folding or on a door seal or the like, so that the components of the drier are not damaged.

[009] In a preferred embodiment, the housing of the drier has a front end plate, wherein openings are arranged in the front end plate. This arrangement is therefore advantageous because the region of the air inlet grid or the air outlet grid in the drier is normally also located on the front end plate, so that the objects to be dried on the drying basket occupy the optimum position in the air flow.

[010] In a preferred embodiment, a replaceable lint filter is provided in the housing, wherein the opening is arranged adjacent to the lint filter.

[011] In a preferred embodiment, the opening is covered by the inserted lint filter both when the drying basket is fitted and when it is not. This means that the user must previously remove the lint filter automatically during initial commissioning when he wants to remove the drying basket. It is therefore pointed out to the user that a lint filter is provided which must also be cleaned at regular intervals. Incorrect use of the drier is therefore avoided, resulting in a reduction in customer service operations.

[012] In a preferred embodiment, the lint screen is arranged in the lower section of the front end plate and an opening is arranged on each side of the lint filter.

[013] Further details, features and advantages of the invention are evident from the following description of a preferred exemplary embodiment of a drying basket according to the invention for a drier, and of a fastening device for a drying basket on a drier with reference to the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[014] Figure 1 shows a partial perspective view through the feed opening into the interior of a drier with a drying basket fitted;

[015] Figure 2 shows an enlarged detail view taken along arrow A in Figure 1;

[016] Figure 3 shows a drying basket for installation in the drier;

[017] Figure 4 shows a detail view taken along arrow B in Figure 1 on the lower section of the end plate, with the lint filter and drying basket removed;

[018] Figure 5 shows a detail view taken along arrow B in Figure 1 on the lower section of the end plate, with the drying basket and lint filter installed; and

[019] Figure 6 shows a lint filter in the disassembled condition.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[020] Figure 1 shows a partial perspective view into the interior of a drier. The drier has a feed opening 1, a front end plate 2 adjacent to feed opening 1 on the inside of feed opening 1, a rotary drum 3, a drying basket 4, which can be suspended in two openings 5 and 6, which are arranged in the lower section of end plate 2. Drum 3 has a rear wall 7 which is provided with a multiplicity of inlet openings 8 through which hot process air is able to enter drum 3 (arrow 9). On the lower section of front end plate 2 is arranged an outlet grid 10 with a multiplicity of outlet openings 11 through which the process air escapes again from drum 3 (arrow 9). On the lower section of feed opening 1, which is formed in end plate 2, is formed a recess 12 (see also Figure 4) into which a lint screen 13 according to Figure 6 can be inserted so that it comes to rest behind outlet grid 10 or downstream from outlet grid 10 transverse to the direction of flow 9. End plate 2 forms part of a housing 26 of the drier.

[021] According to Figure 4 an opening 5 and 6 is arranged in end plate 2 on both sides of recess 12.

[022] Figure 3 shows drying basket 4 in greater detail. The drying basket has longitudinal supports 14 and 15 manufactured from a thick wire on both longitudinal sides. A grid-shaped basket 16, which is bent upwards on the side, is arranged on both longitudinal supports 14 and 15. Grid-shaped basket 16 is manufactured from a thin wire. A longitudinal support 14 or 15 has a long, straight support section 17 and, in the front section, a connecting device 18 which is formed integrally on longitudinal support 14 and 15 respectively by means of a bending process. Connecting device 18 has, on the front end, a hook 19 which is formed as a bending section 20, itself formed at the bottom and pointing obliquely forward. A horizontal section 21 is connected to the bending section 20, to which section 22, bent obliquely downwards, is in turn connected. A section 23, bent upwards, is in turn connected to section 22, which section 23 passes into support section 17.

[023] Lint filter 13 has an upper diaphragm 24, which, when lint filter is fitted, covers recess 12. The upper diaphragm 24 has a projection 25 on each side, which projection covers openings 5 and 6 in front end plate 2 when lint filter 13 is fitted. Openings 5 and 6 in front end plate 2 are in this case covered by projections 25 of upper diaphragm 24 of lint filter 13 when drying basket 4 is fitted and also when drying basket 4 is not fitted.

[024] For installation of drying basket 4 lint filter 13 is first removed so that openings 5 and 6 become accessible, as shown in Figure 4. Drying basket 4 is then inserted in opening 5 and 6 with hook 19 and section 20 pointing obliquely forward, respectively, until drying basket 4, with its horizontal section 21 and its downwardly bent section 20, comes to rest at the corresponding points of end plate 2. Lint filter 13 is now fitted again so that diaphragm 24 of lint filter 13 covers recess 12 and the lateral projections 25 cover the openings 5 and 6 in end plate 2 (see Figures 2 and 5). Drying basket 4 is dismantled in reverse order.